ABSTRACT

An image (3) in digitized form shall be transmitted over a channel between a transmitter and a receiver. The channel has a limited bandwidth and the image has a less important background (R1) and also regions of particular importance, i.e. regions of interest (R2, Rn). The image is transformed into transform coefficients and compressed (21), and a mask corresponding to the regions (R1, R2, Rn) is defined in the transform domain (22). The transform coefficients are classified (23) and assigned to different segments (SG1, SG2, SGn) in accordance with the mask definition. These segments (24) are coded independently of one another to different degrees of accuracy, depending on the importance of corresponding regions (R1, R2, Rn) in the image (3). Coding results in sub-bit streams (25) which are linked together (26) with the image header (271, 272) to form a bit stream (27), which is sent to the receiver. The receiver decodes the image header and the segment information and reconstructs the mask in the transform domain, including shapes and positions of the regions (R1, R2, Rn). The image is then recreated with the aid of the mask to desired degrees of accuracy in respective regions. It is possible to define several regions (R2, Rn) with different degrees of image quality, and only those parts of the image that are of interest need be decoded.

Publication Figure: Figure 2